State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-124-2

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

CATERPILLAR, INC

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following 1998 model-year Caterpillar, Inc. diesel-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

Engine Family		Displacement (Cubic Inches)	Exhaust Emission Control Systems and Special Features
WCPXH0967ERK	15.8	(967)	Turbocharger Charge Air Cooler Engine Control Module

Engine models and codes are listed on attachments.

The following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour:

Total	Carbon	Nitrogen	<u>Particulates</u>
<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	
1.3	15.5	4.0	0.10

The following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

Total	Carbon	Nitrogen	<u>Particulates</u>
<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	
0.1	1.2	3.8	0.08

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

BE IT FURTHER RESOLVED: That the aforementioned engine family has been conditionally certified subject to the following conditions:

- Any engine which employs a defeat device shall not be covered by this Executive Order.
- 2. Within 150 days following the issuance of Executive Order A-13-124, the manufacturer must show cause, to the satisfaction of the Executive Officer or his designee, that the strategy for fuel injection timing, including timing during the fuel economy mode, is not a defeat device.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 2

_day of March 1998.

R. B. Summerfield, Chief

Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

10/16/97

EO: A-13-124-2

Manufacturer: CATERPILLAR INC.

EPA Englne Family: WCPXH096ZERK

Manufacturer Family Name:

Process Code: Naw Submission.

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							The Late of the second	Alabar Oach the
8.Fuel Rate: 9.Emission Control (bs/hr)@peak torque Device Per SAE J1930	8.Fuel Rate: (lbs/hr)@peak torque	7.Fuel Rate; mm/stroke@peak torque	6.Torque @ RPM (SEA Gross)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	4,Fuel Rate: mm/stroke @ peak HP (for diesel only)	3.BHP@RPM (SAE Gross)	1.Engine Code 2.Engine Model	1.Engine Code
			!					

LARGE ENGINE MO EL SUMMARY

ED: A-13-119-2

Manufacturer: CATERPILLARING

EPA Engine Family: MCPXH0442HSK

3.BHP@RPM (SAE Gross) 2.Engine Model

5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only) mm/stroke @ peak HP (for diesel only) 4.Fuel Rale:

Manufacturer Family Name:

6.Torque @ RPM (SEA Gross)

9.Emission Control Device Per SAE J1930

8.Fuel Rate: (ibs/hr)@peak torque

7.Fuel Rate:

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Process Code: New Submission

mm/stroke@peak torque

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and Peak Torque

fuel rates are

nominal values.

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Note: Peak HP - Cert. Engine

1.Engine Code

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104.7

95.1

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EM, DICAC, ECM EM, DICAG, ECM

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79.9 86.1

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108 99

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660 @ 1440

122

86.1 95.1

71.8 59.2

148 148

EM, DICAG, ECM, EM, DICAG, ECM,

77.6 71.8

> 160 148 160

860 @ 1440

158

76.8

EM, DI, TC, ECM,

may change.

EM, DICAG, ECM EM, DICAG, ECM

EM, DICAC, ECM

152